CORRES. CONTROL
INCOMING LTR NO.

3295 RF 92

DUE
DATE

ACTION

DIST.	LTR	ENC
BENJAMIN, A.		
BERMAN, H.S.		
BRADY, J.A.		
BRANCH, D.B.		
CARNIVAL, G.J.		
COPP, R.D.		
CORDOVA, R.C.		
DAVIS, J.G.		
EVERED, J.E.		
FERRERA, D.W.		
GOODWIN, R.		
HANNI, B.J.		
HEALY, T.J.		
HILBIG, J.G.		
IDEKER, E.H.		
KERSH, J.M.	X	
KIRBY, W.A.		
KRIEG, D.		
KUESTER, A.W.		
LEE, E.M.		
MARX, G.E.		
MORGAN, R.V.	X	
PIZZUTO, V.M.		
POTTER, G.L.		
SANDLIN, N.B.		
SATTERWHITE, D.G		
SCHUBERT, A.L.		
SHEPLER, R. L.		
SULLIVAN, M.T.		
SWANSON, E.R.		
TALLMAN, K.G.		
WILKINSON, R.B.		
WILSON, J.M.		
ZANE, J.O.		
Ferris D	X	
Peterman	X	
CORRES CONTROL	X	X
TRAFFIC		

Reviewed for Addressee
Corres. Control RFP
6-23-92

DATE BY

Ref Ltr. #

RF-46522 (Rev. 6/92)

Department of Energy

ROCKY FLATS OFFICE
P.O. BOX 928
GOLDEN, COLORADO 80402-0928

JUN 22 1992

JUN 23 2 49 PM '92

EG&G
92-DOE-7010 ROCKY FLATS PLANT
CORRESPONDENCE CONTROL

Mr. Martin Hestmark
U. S. Environmental Protection Agency, Region VIII
ATTN: Rocky Flats Project Manager, 8HWM-RI
999 18th Street, Suite 500, 8WM-C
Denver, Colorado 80202-2405

Mr. Gary Baughman
Hazardous Waste Facilities Unit Leader
Colorado Department of Health
4210 East 11th Avenue
Denver, Colorado 80220

Gentlemen:

Unexpected subsurface soil and ground water conditions were encountered during construction associated with the IM/IRA for OU-4. The construction activity involved excavation of the surface water collection and diversion ditch along the northern extent of the temporary surge tank site. The ditch was excavated to the original design depth of four feet below the existing grade near the center of the site (corresponding to the location of the center tank on the enclosed drawings). At this location, the subsurface soil conditions were observed to be quite different from those encountered in the ditch just to the east of the center of the site and in the original test borings installed to support the design phase. The top of the weathered siltstone bedrock appears to have been eroded to form an apparently north to south oriented gully to a depth exceeding nine (9) feet below the existing grade. The gully appears to have then been infilled with soil and rock material which closely resembles that of the surficial soil deposits in the vicinity of the site. Ground water was also observed in the ditch following suspension of the excavation work. Once again, these conditions were not observed in the foundation test borings installed prior to construction at the site or within the additional test pits dug following suspension of the excavation work to determine the lateral extent of the subsurface conditions.

This discovery is not unusual to field construction projects, but did require additional design consideration with respect to the subsurface stability of the temporary surge tank site. The subsequent foundation analysis conducted by Woodward Clyde recommends that the most expedient and cost-effective remedy is to define the depth of the soil condition during excavation of a redesigned trench (based upon field conditions) and install the underdrain system illustrated on the enclosed drawings. The underdrain system will be installed along the entire northern extent of the tank site in place of the

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originally designed surface water diversion ditch. The system will consist of perforated PVC pipe covered with gravel fill and will be installed within a trench which will slope toward the center of the site from the eastern and western extents of the trench. Intercepted ground water will be transported through the drain to the concrete collection sump/manhole. A pump system will be installed within the sump. The proposed discharge is to a rip-rapped area on the natural (original) land surface adjacent to the southeastern toe of the fill embankment. This is a practical design, since the surficial ground water present beneath the current tank site would have previously discharged at seeps along the original hillside or directly to the normally dry stream bed of Walnut Creek.

Construction of the proposed underdrain system is expected to begin within the next two weeks and should not interfere with completion of the surge tanks. You or your staff are welcome to observe construction of the system. We will notify you of the exact date of construction so that you can arrange your schedules.

Please review the enclosed design drawings and system specifications and contact me or Scott R. Surovchak of my staff at your earliest convenience if you should have questions or comments.

Sincerely,

Frazer R. Lockhart
Director
Environmental Restoration Division

Enclosure

cc w/Enclosure:
J. Sands, EM-453
A. Duran, EPA
N. Matsuura, CDH
B. Magee, HAZWRAP

cc w/o Enclosure:
R. Schassburger, ERD, DOE
S. Howard, WOB, DOE
S. Surovchak, ERD, DOE
D. Ferrier, EG&G
B. Peterman, EG&G